RESPONSE

Applicant has carefully reviewed and considered the Final Office Action mailed on January 24, 2008. Applicant notes that the Office Action Summary has checks for both the "this action is FINAL" and the "this action is non-final" boxes in Item 2. However, page 8 of the Detailed Action recites that the action is made final, and accordingly Applicant treats the Action as a final office action. This response is made within TWO MONTHS of the mailing date of the final action.

Applicant apologizes in that the wrong claim set was included in 12 November 2007 response. Specifically, claims 9 and 13 showed the amendment as having already been made, and did not properly identify the claim as "Currently amended" and did not show the amendment to be made (the deletion of Trp-Cys-NH_2 from the definition of S_5 in each instance). Instead, the response incorrectly showed the amendment as having been previously made, rather than being made in that paper. Claims 9 and 13 are submitted in this paper as being "Currently amended", and in each Trp-Cys-NH_2 is deleted from the definition of S_5 by being lined through (~~Trp-Cys-NH_2~~).

For the reasons set forth in 12 November 2007 response, Applicant urges that claims 9 through 14 are allowable, including linking claims 9, 11 and 13.

Claim Rejections – 35 USC § 102(a)

Claims 1-2, 5, 6-9 and 13 rejected under 35 USC 102(a) as being anticipated by Sharma et al. (WO 01/13112). Applicant respectfully traverses the rejection for the following reasons.

Claim 9 is drawn to a "peptide, consisting of the sequence S_1 – S_2 – D-Phe(4-Cl) – S_4 – S_5…", with the variables thereafter defined. Claim 13 is drawn to a "peptide, consisting of the sequence S_1 – S_2 – S_3 – S_4 – S_5…", with the variables thereafter defined. As stated in MPEP § 2111.03, the "transitional phrase 'consisting of' excludes any element, step or ingredient not specified in the claim."

None of the peptides cited in the reference meet the limitations of claim 9 or 13 as

amended herein. At paragraph numbered 2, page 3, the peptide cited as anticipating is compound number PL-1949, Heptanoyl-Ser(Bzl)-D-Phe(4-Cl)-Arg-Trp-Cys-NH_2. This compound fails to meet the limitations of claims 9 or 13 because neither claim provides that S_5 may be "Trp-Cys-NH_2." In both claims 9 and 13, the only permissible substituents defined for the S_5 position and starting with "Trp" are Trp, Trp-OH, Trp-NH_2, Trp-Val-NH_2, MeTrp-NH_2, Trp-Asp-NH_2, Trp-Asp-Phe-NH_2, Trp-Ala-NH_2 or Trp-Asp-OH. Because the definition of the peptide in claims 9 and 13 is closed, that is, it uses the transition phrase "consisting of", then the peptide must necessarily have as the C-terminal group whatever is defined as S_5, and no other or additional amino acids or groups. Thus a peptide with a group -Trp-Cys-NH_2 in the position corresponding to S_5 does not anticipate because -Trp-Cys-NH_2 is not a defined substitution for S_5 in either claim 9 or claim 13.

While Applicant understand that the search did was not extended to claim 11, Applicant notes that claim 11 similarly employs the "consisting of" transitional phrase. Claim 11 is amended by deleting therefrom the variable -Trp-Cys-NH_2 as a defined substitution for the S_5 position.

Double Patenting

Claims 1-2, 5, 6-9 and 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-54 of U.S. Patent No. 7,049,398. This rejection is respectfully traversed.

The rejection is proper only if the invention defined in the claims of the current application would have been an obvious variant of the invention defined in the claims of U.S. Patent No. 7,049,398. MPEP § 804. Thus a conventional obviousness analysis, similar to that under 35 U.S.C. § 103, is employed when making an obvious-type double patenting rejection.

U.S. Patent No. 7,049,398 is drawn to formula encompassing and series of metallopeptides asserted to be specific for melanocortin receptors. These metallopeptides all include a "metal ion selected from the group consisting of rhenium and technetium" (*see* independent claims 1, 2 and 44). By contrast, the peptides of the present invention are conventional peptides, and do not include any metal ions complexed thereto.

All of the peptides disclosed in U.S. Patent No. 7,049,398 and all of claims 1-54 require that the metallopeptide include a cysteine residue or similar amino acid providing both a nitrogen atom, from the alpha amino group, and a sulfur atom, from a side chain, for complexing to a metal ion. *See*, for example, the definition of "Ccc" in each of independent claims 1, 2 and 44. The reason that the peptides disclosed in U.S. Patent No. 7,049,398 require a cysteine or cysteine-like residue is because U.S. Patent No. 7,049,398 discloses only metallopeptides, and in the formulas disclosed therein the cysteine or cysteine-like residue is necessary to form the desired metallopeptide with an N_3S_1 ligand. As further disclosed in U.S. Patent No. 7,049,398, it is a characteristic of the disclosed metallopeptides that they are "substantially more specific for one or more melanocortin receptors when the metal ion-binding domain is complexed with a metal ion than is the peptide or salt thereof when the metal ion-binding domain is not complexed with a metal ion." *See* independent claims 1, 2 and 44.

By contrast, the claims of the application at hand do not involve metallopeptides, and do not require or permit that the peptides have a cysteine or cysteine-like residue. As discussed above, Applicant has canceled claims 1 through 8, and the remaining independent claims under examination, claims 9 and 13, employ the transition phrase "consisting of", and thus no peptide of U.S. Patent No. 7,049,398 anticipates or makes obvious either claim 9 or 13, neither of which encompass a peptide with or including a cysteine residue in the position corresponding to S_5.

Because the invention defined in the claims of the current application is not an obvious variant of the invention defined in the claims of U.S. Patent No. 7,049,398, no terminal disclaimer is required. Applicant notes that U.S. Patent No. 7,049,398 and the instant invention are commonly owned.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (609 495 9197) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account

No. 50-3582.

Respectfully submitted,

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